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extending from the first surface into the first semiconductor region, the first body region being laterally spaced from the second body region to form a JEET region therebetween, the first and second body regions being of a conductivity type opposite that of the first semiconductor region;

- first and second source regions in the first and second body regions respectively, the first and second source regions being of the same conductivity type as the first semiconductor region; and
- a gate extending over but being insulated from each of the first and second body regions such that a channel region is formed along a surface of each of the first and second body regions between the corresponding source and JFET regions, the gate being discontinuous over a surface of the JFET region between the first and second body regions.

13. A MOSFET comprising:

- a first semiconductor region having a first surface;
- a first trench region extending from the first surface into the first semiconductor region;
- a first plurality of regions along a sidewall of the first trench region; and
- a termination structure comprising a termination trench ²⁵ region extending from the first surface into the first semiconductor region, the termination trench being filled with a semi-insulating material, the semi-insulating material being insulated from the first semi-conductor region. ³⁰
- 14. The MOSFET of claim 13 wherein the termination trench region is laterally spaced from the first trench region so that during an operating mode of the MOSFET a substantially uniform electric field in the region between the termination trench region and the first trench region is 35 obtained

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15. The MOSFET of claim 13 wherein the semi-insulating material extends over the first surface in a direction away from the first trench region such that during an operating mode of the MOSFET the electric field in the first semiconductor region under the portion of the semi-insulating material extending over the first surface is substantially reduced.

16. A MOSFET comprising:

- a first semiconductor region having a first surface;
- a first trench region extending from the first surface into the first semiconductor region;
- a first plurality of regions along a sidewall of the first trench region; and
- a termination structure comprising an insulation-filled termination trench region extending from the first surface into the first semiconductor region, the termination trench region being laterally spaced from the first trench region so that during an operating mode of the MOSFET a substantially uniform electric field in the region between the termination trench region and the first trench region is obtained.
- 17. The MOSFET of claim 16 further comprising a plurality of floating regions along a sidewall of the termination trench region.

18. A structure comprising:

- a semiconductor region having a first conductivity type; an insulation-filled trench formed in the semiconductor region;
- a body region formed in the semiconductor region along a sidewall of the insulation-filled trench; and
- a plurality of floating regions formed in the semiconductor region along a sidewall of the insulation-filled trench below the body region, the plurality of floating regions and the body region having a second conductivity type opposite that of the semiconductor region.

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